

PATENT

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**ABSTRACT OF THE DISCLOSURE**

[0033] Methods of using and making and apparatuses utilizing a filtered actuator port for hydraulically actuated down hole tools. The filtered port prevents sand or other debris from entering the actuator workings of a tool. In accordance with one aspect of the invention, hydraulic tools utilizing filtered actuator ports are disclosed. In a second aspect, the filtered port comprises fine slots disposed through a wall of a mandrel spaced around the circumference of the mandrel. In a third aspect, the inlet port is formed by laser cutting or electrical discharge machining. In a fourth aspect, the filtered port is disposed in various components of a fracture pack-off system. Methods of using the fracture pack-off system utilizing the filtered port are provided.